THE ROLE OF EDUCATION FOR THE VALUATION PROFESSIONAL

Hera Antoniades

University of Technology Sydney (AUSTRALIA)

Abstract

Property valuers are specialists who undertake an important role in the Built Environment. Their role can include determination of rent reviews, valuation of properties, portfolio reviews for investment properties, valuations for estate matters and property ownership valuations. Mandated education is a pre-requisite for the licensing of valuers, and with added restrictions depending on whether the level of qualification held is an Advance Diploma, or an Undergraduate degree – both qualifications requiring a major in Valuation subjects. This paper is to clarify the educational aspects placed upon valuers where mainstream tertiary pedagogy was initially considered adequate; however, in later years the requirements changed to an undergraduate degree qualification. Therefore, the curriculum design for mainstream valuation courses is analysed and compared between the vocational sector and universities. It is arguable whether it is the teachings of the epistemology of valuation, or the assessment methodologies which steer the property industry to nominate the undergraduate degree for full valuation recognition and licensing.

Keywords: Curriculum, education, epistemology, property.

1 INTRODUCTION

In the early days of Australia, valuers were primarily carrying out property or stock and station agency duties and were able to associate a value with the agriculture and farming business, together with the land ownership. In many instances, the courts would enlist the valuer's services to provide an expert opinion on the operation and worth of the property and land. There were no minimum requirements for education, which is in contrast to recent years. For instance, during the last decade, the valuation profession mandates an accredited valuation course with the minimum requirement of an undergraduate degree. This is in addition to the application of the theory through practical experience on the job.

During Australia's early years of settlement, migrants purchased large parcels of land. The migrants were slow to develop the land and this under utilisation of land, did not provide an economic benefit to the country. Therefore, as a way to solve this problem, the Commonwealth, in the early 1900s introduced a tax on land. This progressive tax, which was levied on the unimproved value of the land, offered an additional benefit for the Commonwealth, through the revenue funds raised. Subsequently, this encouraged property owners to sell land which was not utilised, and in turn this provided an opportunity for new arrivals to purchase and farm land.

Because the land tax was levied on the unimproved value of the land, the government gave valuers the role to determine the unimproved value of the land. The valuers were trained on the job, without any educational requirements, however in 1926, the Commonwealth Institute of Valuers was established (Newell 1992). The aim of the institute was to develop codes and professional practice standards. This was an important step towards formalising educational requirements for valuers, and the Institute was instrumental in establishing formal training programs and examination systems. The first national valuer's exam was held in 1936 (Australian Valuation Office 2010). This system of education stayed in place until the late 1970s. The Institute later changed their name to the Australian Property Institute which is their current name.

Up until the 1980s the Valuation courses were carried out by TAFE (government funded colleges), with exams being conducted on a national level. This worked quite well, however the role of the property valuer was changing along with the changing nature of societies needs for property ownership. Valuers were now required to undertake valuation work for both the private and government sector. This included compulsory acquisitions and rating valuations, assessing rent for leases and establishing the value of properties for sale. Therefore, the valuers' clients had expanded to include banks, property developers and insurance companies, etc.

ISBN: 978-84-616-3847-5

However, in the mid 1980s and onwards, degree level qualifications through universities, for valuers' was established. This was designed to expand the educational opportunities for the valuation profession with either a vocational qualification through the TAFE system, or via the university. Initially valuation was described as a vocational discipline, however the expectation has evolved, with the requirement for a highly skilled professional, with technical expertise in property values. It is now generally accepted that a valuer apart from their technical knowledge and valuation skills, must also possess sound understanding of property law and planning law.

This paper seeks to identify the educational requirements for valuers and compare the vocational tertiary stream with the university curriculum. It is argued that the teachings of the epistemology of valuation are similar for both levels of education. However, the varied requirements with the assessment methods appear to steer the property industry to nominate an undergraduate degree in favour over a vocational qualification.

2 LITERATURE REVIEW

Property valuers are specialists who undertake an important role in the Built Environment. Their role can include determination of rent reviews, valuation of properties, portfolio reviews for investment properties, valuations for estate matters and property ownership valuations. During the last two decades, varying research into property valuation education has reiterated the importance of course content and consistency with valuation methodologies.

For instance, a survey of investment valuation approaches undertaken by Boyd (1995), highlighted the inconsistencies within the profession in Australia, and the lack of uniformity across the jurisdictions. His preliminary survey indicated that valuers with a higher academic qualification were better able to utilise specialist valuation theory and techniques as compared to the vocational sector education. The mid 1990s were the flow on effect from the recession experienced by Australia which occurred in the early 1990s. During this recession, the property market was unprepared and questions were raised by developers, banks and investors on the methodology adopted by valuers and the legitimacy of the valuation rationale, given the recession experienced in those years.

Therefore, there was a demand in Australia for the valuation profession, to standardise the property market valuation reports and to have a better understanding of the economic situation. During the end of 1988 to 1989, Australia reached a peak in the property cycle, followed by a recession for many years. However, even in recent years, valuers have come under fire again, with the global financial crises, and clients question the property values stated prior to the downturn in the property market. Similarly, in the UK there were debates relating to the crash of the 1970s and also the USA crises in the late 1980s. Gilbertson and Preston (2005) debated over the modern design and methodology approach for valuers and cautioned the importance of the valuer changing to respond to the present needs of the industry. For instance they included the automation of services and the emerging economies, and the lessons which could be learnt from countries who suffered economic crises, and particularly for their property sector. The authors stated that valuation was a public interest profession, and very important to maintain trust and confidence for the public interest.

Whilst technology affected most service industries as far back as the 1990s (Reed 1999), there have been similar concerns in later years with new and emerging trends. For instance, Nzioki et.al (2006) reiterated the importance of content including technology and Elliott and Warren (2005) raised the issue of desk top valuations. Their concern stemmed from the role of education coupled with conflicts to professionalism in a very competitive market. Their research indicated that clients were not prepared to pay for the valuers professional service, which could arise from consumers lack of understanding on the importance of the valuers role as a property economist, and their level of risk management issues for property investment. So whilst industry and government sought to increase the educational standards of property valuers, consumers and clients were reluctant to bear the financial burden associated with these services.

Gustafsson and Lundstrom (2008) also raised concerns over the changing role of the valuer and the need for academic education to adapt quickly to this change. They also quoted the emerging trends for automation and mass valuations. They further discussed the importance of specific technical skills and the macroeconomic requirements for property valuation rationale.

Valuers education is also evidenced internationally. For instance, in Nigeria there has been a demand for an increase in registration of graduands and the introduction of rigorous accreditation standards to

facilitate with the growth of the country's property sector (Oloyed et.al 2011). The educational content was highlighted with an emphasis on in-depth course content and relevant knowledge.

Similarly there has been a demand to introduce uniform standards and globalization of the valuation profession for the market at a European level. For instance, Capriolo (2012) considered the importance of "harmonize the estimation methodology" and "procedures based on multiple parameters", as an incentive to aid the valuer in achieving the status of social responsibility. Similarly, Zrobek and Grzesik (2013) commented on the changing role for the property valuer and the educational programs available. They considered the importance of developing a "deeper understanding of market globalization and better analytical skills". This was considered paramount for the development of their valuation rationale and investment decisions. They also considered the national and international perspective very important and suggested harmonization by the European Union for valuation standards and methodologies.

Whilst literature has focused on academic courses, there is no mention from overseas countries that educational institutes provide vocational courses for the property valuer. Indeed even in Australia, there is lack of consistency across the various jurisdictions and hence the need to limit this research paper, within a jurisdiction where both vocational and university courses are offered for the property professional. Academic outcomes can differ from vocational outcomes and practical outcomes.

For instance, Baxter (2007) considered these pressures, particular given the fact that property valuation is a niche program and would have some difficulty in surviving economically. There was also the added requirement to include research into the teaching, which could present a challenge since the academic valuation discipline is a relatively new level of education. Therefore, this could be considered that valuation is at the crossroad between academic standards, meeting the needs of the client, and achieving the appropriate accreditation requirements. Baxter (2007) also suggested to enrich the students educational experience through the introduction of problem solving scenarios. If one were to compare the academic rigor to the vocational needs, there is the possibility that course content would be very similar, however, assessment methods could differ.

In conclusion, literature suggests the need for an undergraduate degree for the property professional. This is due to the changing nature of society and global economic events. The consideration of course content is equally important, sometimes driven by industry standards and consumer demands. The importance of establishing credibility was noted, particularly against traditional professions such as law, medicine and business.

3 RESEARCH METHODOLOGY AND LIMITATIONS

The aim of this research paper is to undertake a contextual analysis of the educational requirements for valuers, within the vocational sector and the university system. Issues raised earlier in this paper include the improvement of standards and qualifications due to the changing nature of their work during the last century. In the introduction section of this paper an overview of the early beginnings for the profession is explained, which provides an understanding of the evolvement of their educational requirements.

This paper has limited the research to the jurisdiction of New South Wales, where there are currently vocational and university curriculums taught. It is also acknowledged that other jurisdictions have different licensing requirements for valuers and do not necessarily have any vocational courses. Therefore for the purpose of simplicity and providing a comparison with educational qualifications, New South Wales has been selected.

The following research stages have been identified for incorporation into the research design process:

1. **STAGE ONE** - The advanced diploma qualification, in New South Wales, was once accepted as a suitable qualification for full membership by the Australian Property Institute (API). The applicant also had the opportunity to apply for the designation of certified practicing valuer (CPV). This qualification is no longer recognized towards the CPV designation and the applicant is unable to obtain full membership with the API. With regards to this theme, the research seeks to identify the educational changes in the curriculum which led to this change in the qualification recognition. Primarily this is in regards to the change in the requirements which now warrant a highly skilled professional, with technical expertise in property values, and an understanding of property law and planning law.

2. **STAGE TWO** - The Australian Qualifications Framework (AQF), was established in 1995. The framework provides the minimum criteria recognised for each of the 10 levels of qualifications. Therefore a comparison will be undertaken between the vocational qualification for an advanced diploma, against a university qualification. The issue here is to establish if there are concerns with course content or the method of assessment pertained within each level of the AQF.

Therefore, in summary, the research will firstly establish if vocational course content is inadequate when compared to a university qualification. And secondly the research will further seek to identify the criteria within the AQF levels and map this against the skill requirements for the valuation profession.

4 DISCUSSION AND ANALYSIS

The standards for educational qualifications in Australia are administered by the Australian Government Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education (AGD). The states and territories provide assistance and input via the Standing Council of Tertiary Education Skills and Employment. Therefore, for the purpose of providing minimum criteria to identify the various certificates and diplomas levels, the AQF was established in 1995. For instance, a diploma qualification is generally studied between one to 2 years full time, with the graduates expected to have specialised knowledge and skills. In comparison, a Certificate IV is generally completed within 6 months full time study, and graduates will possess theoretical and practical knowledge and skills. Furthermore, the AQF includes 10 levels of qualifications which extends to higher education courses, thus providing consistency from the vocational studies through to undergraduate and postgraduate courses throughout Australia (ADITC).

To assist with the formation of suitable subject content for construction and property courses, National Training Packages (NTP) are developed in conjunction with industry and an extensive national consultation process. The national Industry Skills Council (ISC) is responsible for the co-ordination, development and review process for all the national training packages.

The qualifications available through the completion of modules within the NTP can range from a Certificate II to an Advanced Diploma level. Each level of qualification has differing requirements for course content and hours of delivery. Depending on the jurisdiction within Australia, the minimum acceptable qualification for a valuer is an advanced diploma or above. Depending on the job description and responsibility and the desired career pathway, the training packages are designed to provide flexibility and appropriate exit points.

In 2005, the first national training package for the property industry was introduced, with a focus on recognition of prior learning (RPL), and the application of competency based assessments. Therefore, this could include on-the-job learning and assessment and the minimisation of the traditional classroom environment. Listed below in table 1, is a comprehensive code and title description of relevant modules identified in the current Advanced Diploma of Property Services (Valuation). This course is the vocational course offered by TAFE NSW and is taught over 1021 hours. The topics appear to be very comprehensive, and class sizes are approximately 25 students with a maximum of 30 students per class.

TABLE 1: 91495NSW ADVANCED DIPLOMA OF PROPERTY SERVICES (VALUATION)

MODULE NUMBER	HOURS	MODULE NAME
BSBMGT609A	40	Manage Risk
CPPDSM306A	25	Collect and process property information
CPPDSM3014A	30	Undertake property inspection
CPPDSM3016A	50	Work in the property industry
CPPDSM4026A	20	Analyse property and facility information
CPPDSM6002A	30	Conduct a property investment feasibility student
CPPDSM6005A	30	Develop a property investment strategy
CPPDSM6010A	20	Manage performance of property investment
NSWTVAL601B	10	Give evidence in legal proceedings of property related matter
NSWTVAL602B	45	Cost construction of property for progress payments

NSWTVAL608B	48	Use advanced computing skills to support property valuation
NSWTVAL611A	27	Identify and interpret statutory planning processes
NSWTVAL612A	54	Select, use and maintain technology for the property industry
NSWTVAL613A	27	Identify and interpret property economic concepts
NSWTVAL614A	45	Use financial concepts to assess property
NSWTVAL617A	36	Determine retail and commercial property values and report
NSWTVAL618A	27	Determine industrial property values and report
NSWTVAL619A	36	Determine valuations for rating and statutory requirements
NSWTVAL620A	45	Assess and report on property improvements
NSWTVAL621A	18	Collect and apply statistical data to assess property
NSWTVAL622A	27	Interpret basic survey data
NSWTVAL624A	45	Apply legal principles to property valuation
NSWTVAL625A	45	Determine residential value and report
NSWTVAL626A	45	Determine rural property value and report
NSWTVAL627A	27	Produce valuations for fractional interests in property
NSWTVAL628A	27	Determine special use property value and report
NSWTVAL629A	18	Produce valuations for insurance purposes
NSWTVAL630A	36	Relate accounting and taxation concepts to property matters
		Two Electives

Source: TAFE NSW Course Information

As indicated in the table above, students must complete the above 28 core units, plus 2 electives, which are available under a group 2 heading. Whilst the two electives are available from a mandatory selection list, there is also a group of modules which are available for the student for the purpose of enriching their knowledge.

Earlier in this paper a limitation of the research identified the need for nominating one jurisdiction across Australia, and for this purpose New South Wales was selected. Therefore, below in Table 2, is a contextual analysis of the two universities in New South Wales, which offer an undergraduate degree in property valuation. The University of Western Sydney (UWS) offers a 3 year full time degree and the University of Technology Sydney (UTS) offers a 3.5 year full time degree.

TABLE 2: COMPARISON OF UNIVERSITY UNDERGRADUATE DEGREES

UNIVERSITY OF TECHNOLOGY SYDNEY		UNVERSITY OF WESTERN SYDNEY	
SUBJECT	**SUBJECT NAME**	**SUBJECT**	**SUBJECT NAME**
16468	Introduction to the Built Environment	200336	Business Academic Skills
16467	Built Environment Law	200052	Introduction to Economics Method OR Statistics
16466	Built Environment Economics	200184	Introduction to Business Law
16127	Building Technology	200571	Management Dynamics
16137	Digital Built Environment	200083	Marketing Principles
16234	Valuation Methods	200101	Accounting Information for Managers
16266	Sustainable Urban Design and Development	200525	Principles of Economics
16267	Property Title and Spatial Data Analysis	300706.2	Building 1
16238	Research Methods	200599.2	Land Law
16233	Urban Planning Process	200435.3	Property Development controls
16236	Property Cash Flow Analysis	200605.2	Rural Valuation

16235	Urban Economics	200711.2	Statutory Valuation
16264	Accounting and Business Management	200604.2	Valuation of Special Premises
16232	Property and Political Economy	200600.2	Commercial Property Management
16231	Property Management	200603.2	Commercial Valuation
16331	Specialised Valuation	200601.2	Introduction to Property
16332	Investment and Portfolio	200602.2	Principles of Valuation
16333	Statutory Valuation and Litigation	200598.2	Property Development
16237	Property Taxation	200597.2	Property Finance and Tax
16335	Advanced Valuation	200749.2	Property Investment
16338	International Property Investment	200750.2	Property Portfolio Analysis
16261	Development Management		2 Electives
16469	Professional Practice		
16345	Property Trusts and Funds		
	Four Electives		

Source: Handbooks 2013 for the University of Technology Sydney and the University of Western Sydney

Whilst the comparative analysis of subjects indicates that UTS has a wider listing, each university must meet the minimum fields of knowledge for accreditation with the API. Therefore all the relevant topics are included in both universities. The major difference between the two courses is that UTS has a stand alone degree, being the Bachelor of Property Economics, whilst the UWS has a Bachelor of Business and Commerce with a major in Property. Therefore in comparing the two university degrees they both offer a good range of skill sets which meet the entry requirements for the valuation profession. The question then arises, if the course content for the universities is acceptable, although different, are there any major differences with the Advanced Diploma qualification which is identified under Table 1?

Indeed a comparison between Table 1 and Table 2 signifies a similarity between the hours allocated for face to face delivery of the subjects, with the diploma course having smaller numbers in their class, when compared to university class sizes. There is also a good overview of the major fields of knowledge for a valuer in all of the courses analysed. Whilst the degree in the UWS has a heavier weighting towards accounting subjects, this is reasoned due to the fact that their degree is a major in the property discipline and embedded within a Business and Commerce degree.

A further consideration, being the final part of this research is to determine the differences between the advanced diploma and the undergraduate degree, according to the criteria set by the AQF. Therefore, for this purpose, table 3 below identifies the characteristics between these two qualifications. A major difference, which relates to the purpose of the two qualifications, is the application of knowledge and skills. The advanced diploma requires specialised and integrated technical and theoretical knowledge, whilst the bachelor degree requires a broad and coherent body of knowledge with depth.

TABLE 3: VARIANCES BETWEEN A CERTIFICATE IV AND A DIPLOMA

DESCRIPTOR	ADVANCED DIPLOMA	BACHELOR DEGREE
PURPOSE	Qualifies individuals who apply specialized knowledge in a range of contexts to undertake advanced skilled or paraprofessional work and as a pathway for further learning	Qualifies individuals who apply a broad and coherent body of knowledge in a range of contexts to undertake professional work and as a pathway for further learning.
KNOWLEDGE	Specialised and integrated technical and theoretical knowledge with depth within one or more fields of work and learning	Graduates will have a broad and coherent body of knowledge, with depth in the underlying principles and concepts in one or more disciplines as a basis for independent lifelong learning.

SKILLS	• Cognitive and communication skills to identify, analyse, synthesise and act on information from a range of sources • Cognitive and communication skills to transfer knowledge and skills to others and to demonstrate understanding of specialised knowledge with depth in some areas. • Cognitive and communication skills to formulate responses to complex problems. • Wide-ranging specialized technical, creative or conceptual skills to express ideas and perspectives.	• Cognitive skills to review critically, analyse, consolidate and synthesise knowledge • Cognitive and technical skills to demonstrate a broad understanding of knowledge with depth in some areas • Cognitive and creative skills to exercise critical thinking and judgement in identifying and solving problems with intellectual independence • Communication skills to present a clear, coherent and independent exposition of knowledge and ideas
TIME FRAME	1.5 years to 2 years	3 to 4 years
APPLICATION OF KNOWLEDGE AND SKILLS	Graduates at this level will demonstrate the application of knowledge and skills: • with depth in areas of specialization, in contexts subject to change • with initiative and judgment in planning, design, technical or management functions with some direction • to adapt a range of fundamental principles and complex techniques to known and unknown situations • across a broad range of technical or management functions with accountability for personal outputs and personal and team outcomes within broad parameters	Graduates will demonstrate the application of knowledge and skills: • With initiative and judgement in planning, problem solving and decision making in professional practice and/or scholarship • To adapt knowledge and skills in diverse contexts • With responsibility and accountability for own learning and professional practice and in collaboration with others within broad parameters • at this level will apply knowledge and skills to demonstrate autonomy, judgement and defined responsibility in known or changing contexts and within broad but established parameters

Source: Australian Qualification Framework and Author

Another difference between the two qualifications is the time frame for the duration of study, where the advanced diploma is generally completed within 1.5 years to 2 years, and the bachelor degree is completed between 3 to 4 years.

5 CONCLUSION

With regards to education for the valuation profession, this research paper set out to identify if there were any major variances between a vocational tertiary stream qualification, as opposed to a bachelor degree (viewed at Table 1 and Table 2). Furthermore, a limitation of the research was the application of analyzing only New South Wales, where these two qualifications do exist, and it was considered beyond the scope of the paper to articulate all jurisdictions across Australia.

There was also consideration given to the aspect of the final qualification. For instance, if both the tertiary and university systems provide adequate course content, then why is the bachelor degree the nominated qualification for a certified practicing valuer? In addition, table 3 identified the differences between the two qualifications and whilst there was no mention of course content, the criteria determined by the AQF weighs on the application of knowledge and skills. A summary of the findings is as follows:

1. Both the vocational course and the bachelor degree courses contain comprehensive course content which is suitable for the subject areas required for the valuation professional.
2. Both the vocational course and the bachelor degree courses are of similar nominal hours of face to face attendance.
3. It was not possible to gather information on the study pattern of students outside their classroom attendance.

4. Class sizes in the tertiary sector are significantly lower than in the bachelor programs. For instance on an average 25 to 30 students, as opposed to 100 students.
5. A major difference between vocational education and university appeared to relate to the application of knowledge and skills. For instance, the advanced diploma requires specialised and integrated technical and theoretical knowledge, whilst the bachelor degree requires the articulation of knowledge with depth. Therefore, the variances between assessment requirements within the two qualifications, have contributed to the decision that only university graduands are accepted for certified practicing valuer.

Additional research is also recommended to investigate the view point of the relevant professional bodies which represent the valuation profession.

REFERENCES

[1] Australian National Qualifications http://aditc.com.au/AustralianNationalQualifications viewed 23rd September 2013

[2] Australian Quality Framework http://www.aqf.edu.au/wp-content/uploads/2013/05/AQF-2nd-Edition-January-2013.pdf Viewed 23rd September 2013, 2nd Edition Pp15-16

[3] Australian Valuation Office, (2010), 100 years of valuing Australia, A history of the Australian Valuation Office, Canberra, Commonwealth of Australia, 1st Edition

[4] Baxter, J. (2007). Re-engineering a valuation degree: how did we get here and where do we go? Journal of Property Investment and Finance, Vol. 25, No. 5, pp. 444-467

[5] Boyd, T. (1995). Practice Paper, Current valuation practice in Australia, A survey of valuers. Journal of Property Valuation and Investment, Vol. 13, No. 3, pp. 59-69

[6] Capriolo, F. (2012). Valuation, between culture and profession, TS071 – Accreditation and quality Assurance, 6114 FIG Working Week, General Topic, Rome, Italy, 6-10 May 2012

[7] Elliott, P. and Warren, C.M.J. (2005). The Valuation Profession in Australia: Profile, Analysis and Future Directions, Pacific Rim Real Estate Society Conference – Melbourne 24-27 January 2005

[8] Gilbertson, B. and Preston, D. (2005). A vision for valuation, Journal of Property Investment and Finance, Vol. 23, No. 2, pp. 123-140

[9] Gustafsson, C. and Lundstrom, S. (2009). New Challenges for Valuers – Need for Extended Education Integration Generations, FIG Working Week 2008 , Stockholm, Sweeden, 14-19 June 2008

[10] Newell , G. (1992). The Valuation Profession in Australia, Journal of Property Valuation and Investment, Vol. 10, pp 691 – 693

[11] Nzioki, N. and Kariuki, C. and Murigu, J. (2006). Education and Training in Valuation, Land Management and Housing In Kenya, TS 44 – curricula II 1/14 XXIIIFIG Congress, Munich, Germany, October 8-13, 2006

[12] Oloyede, S.A. and Ayedun, C.A. and Ajibola, M.O. (2011). Issues facing the Estate Surveying and Valuation Profession in Nigeria, Business Management Dynamics, Vol. 1, No. 2, pp. 54-60

[13] Reed, R. (1999). Learning environment stimulation in the real world, Conference Paper for the 1999 Effective courses/effective Teaching at University: Reflection on Practice/Practice for Reflection Conference, Teaching and Educational Development, Institute (TEDI), St Lucia, Qld

[14] TAFE NSW – Course Information https://www.tafensw.edu.au/howex/servlet/Course?Command=GetCourse&CourseNo=17690 viewed 23rd September 2013

[15] University of Technology Sydney Hand Book 2013 http://www.handbook.uts.edu.au/UTS_Handbook_2013.pdf viewed 23rd September 2012 pp126-128

[16] University of Western Sydney
http://handbook.uws.edu.au/hbook/course.aspx?course=2753.2
viewed 23rd September 2013

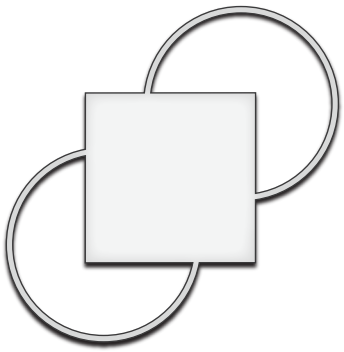
[17] Zrobek, S. and Grzesik, C. (2013). Modern Challenges Facing the Valuation Profession and Allied University Education in Poland, Real Estate Management and Valuation, Vol. 21, No.1, pp.14-18

iCERi 2013

6TH INTERNATIONAL CONFERENCE OF EDUCATION, RESEARCH AND INNOVATION

CONFERENCE PROCEEDINGS

SEVILLE, SPAIN
18-20 NOVEMBER 2013



iCERi 2013

6TH INTERNATIONAL CONFERENCE OF EDUCATION, RESEARCH AND INNOVATION

CONFERENCE PROCEEDINGS

SEVILLE, SPAIN
18-20 NOVEMBER 2013

Published by
International Association of Technology, Education and Development (IATED)
www.iated.org

ICERI2013 Proceedings
6th International Conference of Education, Research and Innovation
November 18th-20th, 2013 — Seville, Spain

Edited by
L. Gómez Chova, A. López Martínez, I. Candel Torres
International Association of Technology, Education and Development
IATED

ISBN: 978-84-616-3847-5
ISSN: 2340-1095
Depósito Legal: V- 2798-2013

Book cover designed by
J.L. Bernat

WELCOME INTRODUCTION

Dear ICERI2013 participants,

It is a pleasure to welcome you all to the 6th International Conference of Education, Research and Innovation.

Thank you for coming to this inspiring forum of knowledge exchange. Some of you have travelled form very far to attend this conference. In fact, ICERI2013 has brought together nearly 700 delegates from over 75 countries.

ICERI2013 aims to be a dynamic conference where you will benefit from the great variety of topics and presentations. The program will offer parallel sessions covering all aspects of learning, teaching and educational technology. You will be exposed to many diverse projects and experiences in a multidisciplinary and truly international atmosphere. Also, the social events will promote the interaction with other colleagues with the same aim as you: learning from others and sharing their best practices and experiences.

Finally, you should take some time to discover the attractive city of Seville and its mixture of cultures. The colors, sounds, emotions, feelings, smiles and aromas in Seville will captivate your senses.

Thank you again for attending ICERI2013. We wish you a fruitful and unforgettable conference.

ICERI2013 Organising Committee

ICERI2013 COMMITTEE AND ADVISORY BOARD

Adam Loveday-Edwards	UNITED KINGDOM	Karen Graham	UNITED STATES
Agustín López	SPAIN	Kevin Sludds	IRELAND
Aharon Gero	ISRAEL	Kinley Kinley	DENMARK
Akemi Matsuya	JAPAN	Kurt Kirstein	UNITED STATES
Allen Grant	UNITED STATES	Leila Kajee	SOUTH AFRICA
Amparo Girós	SPAIN	Liam Morgan	AUSTRALIA
Ana Tomás	SPAIN	Lorena López	SPAIN
Andrew Csizmadia	UNITED KINGDOM	Lorenzo Denicolai	ITALY
Antonio García	SPAIN	Luis Gómez Chova	SPAIN
Ato Essuman	GHANA	Mª Jesús Suesta	SPAIN
Bhoumik Deshmukh	INDIA	Marcelo Chanes	BRAZIL
Candido Hernandez Limon	MEXICO	Maria Porcel	SPAIN
Chelo González	SPAIN	Marianne Georgsen	DENMARK
Chikako Takahashi	JAPAN	Mary-Kathryn Zachary	UNITED STATES
Cristina Lozano	SPAIN	Michael Wagner	UNITED STATES
Dana Ruggiero	UNITED KINGDOM	Mirela Malin	AUSTRALIA
Daniel Munteanu	ROMANIA	Miroslav Petrov	SWEDEN
Daniel Wong	UNITED STATES	Mónica Fernández	SPAIN
David Martí	SPAIN	Monica Xavier	PHILIPPINES
David Prescott	UNITED ARAB EMIRATES	Nazan Celik Brutscher	TURKEY
Denisse López Benavides	GERMANY	Nelu Wolfensohn	CANADA
Donald Sturge	JAPAN	Norma Barrachina	SPAIN
Dylan Adams	UNITED STATES	Olga Teruel	SPAIN
Eladio Duque	SPAIN	Panagiota Katsikouli	GREECE
Eugene Monaco	UNITED STATES	Patrick Howard	CANADA
Fergus Timmons	IRELAND	Pauline Morgan	UNITED KINGDOM
Gifty Oforiwaa Gyamera	UNITED KINGDOM	Peter Haber	AUSTRIA
Heather Hamerton	NEW ZEALAND	Phil Holifield	UNITED KINGDOM
Heather McCune Bruhn	UNITED STATES	Piet van der Zanden	NETHERLANDS
Helmut Wöllik	AUSTRIA	Ranil Peiris	SWEDEN
Ignacio Ballester	SPAIN	Rentaro Yoshioka	JAPAN
Ignacio Candel	SPAIN	Roger C. E. Tan	SINGAPORE
Ismael Serrano	SPAIN	Roman Dorczak	POLAND
Iván Martínez	SPAIN	Rosalie Sitman	ISRAEL
Javier Domenech	SPAIN	Salah Arafa	EGYPT
Javier Martí	SPAIN	Saudah Sofian	MALAYSIA
Joanna Lees	FRANCE	Sawsen Lakhal	CANADA
John Puthenkalam	JAPAN	Sayuri Yoshizawa-Watanabe	JAPAN
John Wilson	JAPAN	Sergio Pérez	SPAIN
Jose F. Cabeza	SPAIN	Ute Ihme	GERMANY
Jose Luis Bernat	SPAIN	Uwe Wendt	GERMANY
Julie Bytheway	NETHERLANDS	Viorica Banciu	ROMANIA
Kamila Hernik	POLAND	Xavier Lefranc	FRANCE

Valencia, Nov 2013

PAPER ACCEPTANCE LETTER

This is a confirmation that the full paper entitled:

THE ROLE OF EDUCATION FOR THE VALUATION PROFESSIONAL
H. Antoniades
University of Technology Sydney (AUSTRALIA)

was peer reviewed and accepted in ICERI2013

Pages: 4049-4057
Publication year: 2013
ISBN: 978-84-616-3847-5
ISSN: 2340-1095
Name of event: ICERI2013 (6th International Conference of Education, Research and Innovation)
Dates: 18-20 November, 2013
Place: Seville (Spain)
Organising entity: IATED

IATED International Association of Technology, Education and Development

ICERI2013 Local Organising Committee

International Association of Technology, Education and Development
Ph. (+34) 96 143 43 87 - Fax. (+34) 96 143 46 36 - Email: iated@iated.org
www.iated.org